

Liquefied Natural Gas

Washington State Ferries (WSF) is currently exploring an option to use liquefied natural gas (LNG) as a source of fuel for propulsion. WSF believes that LNG provides an opportunity to significantly reduce fuel costs, and that it can also have a significant positive environmental effect.

Saving money, cleaner environment

WSF burns more than 17 million gallons of fuel each year. Fuel is our fastest growing operating expense. The fuel budget today is nearly 30 percent of the operating budget, or \$67.3 million. That's \$51.7 million more than it was 12 years ago. The fuel cost savings moving from diesel to LNG is approximately 40-50 percent at today's pricing.

Fueling vessels with LNG also significantly reduces emissions.

- Approximately 100 percent reduction in particulate matter and sulfur oxides
- At least 90 percent reduction in nitrous oxides
- Approximately 20 percent reduction in carbon dioxide

Worldwide examples

The use of LNG as a marine fuel for passenger ferries is not unprecedented.

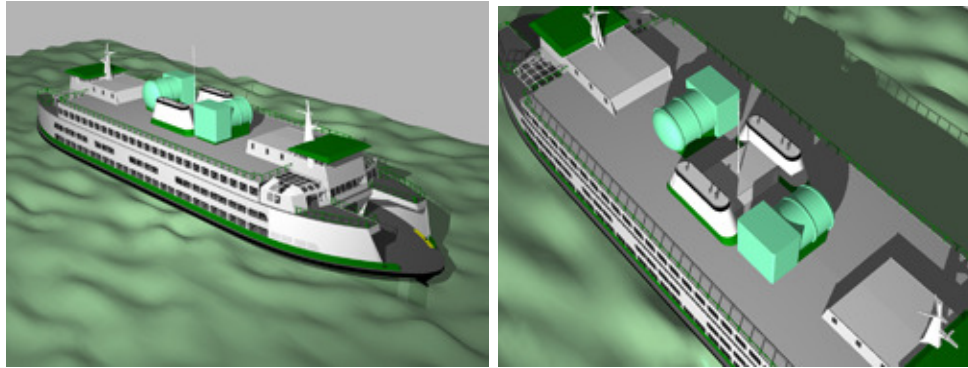
- Since 2000 the Norwegian government has allowed the construction and operation of LNG passenger vessels. There are currently more than 15 car and passenger ferries operating in Norway that are fueled by LNG.
- Both BC Ferries and Staten Island Ferries are studying options to retrofit their vessels from diesel to LNG fuel.
- The Quebec Ferries Company has contracted for three new LNG ferries.
- There are LNG passenger vessels currently under construction or in design for service in Argentina, Uruguay, Finland, and Sweden.

Other examples of LNG used in public transportation

- City of Phoenix Public Transit Department
- Santa Monica, California "Big Blue Bus" system

WSF plans

WSF has received conceptual approval from the U.S. Coast Guard to retrofit the propulsion system with new engines on the six Issaquah Class ferries and the new Olympic Class ferries to use LNG as a source of fuel. These vessels would be fueled by trucking in LNG from sources in British Columbia or the Pacific Northwest.



Renderings of LNG tanks on an Issaquah class ferry

Next steps

- Safety and security assessments
- Design/build LNG propulsion system

Contact

WSF Communications Manager Joy Goldenberg

206-515-3411

joy.goldenberg@wsdot.wa.gov